All We Need Is Drinking Water: The Outcry from the Oil Producing Area of Ondo State, Nigeria

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Abstract

Water is so vital to human life, including food preparation, drinking, washing and irrigation, it is also necessary in massive quantities for industrial processes. Yet, it is a limited resource that must be collected and distributed with care. Many parts of the world are currently facing water shortages while other areas contend with severe water pollution. The story of Ilaje, the riverren oil producing area of Ondo State, Nigeria is pathetic. Being a very large area, 10 communities representing 5% of the affected areas was randomly selected for this study. The use of questionnaire survey, interview, opinion survey and personal observation were the methods of investigation adopted for this study. Based on these, this paper critically examines the water supply situation of the people that lives on water, but lack good drinking water. It identifies that all the inhabitants of the area did not have access to good drinking water and that the people have not yet felt the impact of the government in programmes to increase the water supply. Finally, the paper recommends the various ways to address the problems of water supply in the area including the application of water poverty index, concept of social well being and environmental planning and management process as tools for achieving sustainable development in the area.

Keywords: Coastal, development, drinking-water, environment, Niger- Delta, Nigeria.

1. Introduction

The issue of safe water has generated a lot of controversy in many quarters across the world. As a matter of fact, government at various level, corporate bodies, private, non-governmental organization (NGO), professionals and researchers have shown a lot of concern on safe water on earth as water remains one of the major problem in the world today.It was the presences of huge amounts of water which was calculated to be approximately 70% of the earth surface that distinguished the earth from other planets. It is therefore pertinent to underscore the fact that availability of water for human consumption is central to the survival of human-being and it goes a long way in determining the sustainability of the earth (Encarta 2004). The needs for water for the existence of life cannot be over emphasized. It is with the aid of water that food production for the family is sustained. Transportation, power generation and other social amenities for man's existence are sourced from water. An adequate supply of water, precisely clean water is the most important precondition for sustaining human life and for achieving sustainable development (DrakakisSmith, 2000). Blood in animals and cell in plants consist largely of water and serves as means of transporting food and remove consistently waste material from the cells of living things. It also plays a significant role in the metabolism of such essential molecules such as protein and carbohydrates.Early civilization flourished along river valleys where there was abundant water supply to support life. This claim is supported by ancient civilization such as in Mesopotamia in Tigris Euphrates valley, Egypt in Nile Valley, China in the Huang-Ho valley, also in the Indian civilization in the Indus valley and Andean civilization in the river valley of Costal Peru (Sonuga 1984).The importance attached to water can be observed in the way it is cherished, treated and even revered in the customs, religion, cultural practices by these ancient civilization (Sonuga1984, Fasakin 2005). An attempt as been made by the Nigerian Environmental Society (NES) (2004) that there is mystery behind the issue of water on the planet earth in that 97% is salty and unsafe for living things. The remaining 3% is regarded as fresh water which its volume is translated to a mere 35 million km^3. Also 99% of the fresh water supplies are locked away in ice, glacier or underground, while only 0.1% as running water and stashed in lakes and total usable fresh water supply for ecosystem and human. It was estimated that an average person in Europe and North America uses between 500 and 1000 liters of water daily. However, an average person living in the developing nations of Asia, Latin America and Africa uses between 50 and 100 liters of water daily (NES 2004). Arising from the above analysis of the earthly water, it is evidently shown that there is sharp contrast between the observed and expected as regards the issue of drinking water. The non-availability of this resource and bearing in mind the pivotal roles water plays in the survival of man finds expression over the supply and conservation of water which actually is the bone of contention in this paper.

The situation of water supply in the oil producing area of Ondo State is critical. At present, drinking water is obtained from the following sources, shallow wells/pit, open surface waters from rivers and creeks, boreholes in few location and rain water (Coaster Area Development Consultants, 2000). According to this source, all the

sites visited in the coaster area of the state none have good drinking water. The water in these communities is rather salty, hence people have to travel several kilometers that at time last as much as 2-4 hours before they can get water that is fairly good or bought from vendors selling at exorbitant rates or at times they go for sachet or table water. (OSOPADEC, Ondo State Ministry of Special Duties, 2005)

Additionally water collected from tap close to the boreholes is believed to be slightly saline, and not above the maximum permissible level specified by Niger Delta Development Corporation, NDDC (2004). It needs treatment from iron removal because its iron concentration is high (Coaster Area Development Consultant, 2000). Furthermore oil production activities has polluted the natural water, at times unsaved for human and animal consumption in Niger Delta region in which oil producing region of Ondo state is inclusive. The aim of this study is to critically examine the water supply situation in the area and the role of the government in the supply of water with a view to make recommendations towards achieving sustainable development in the area. It will among others taken the stock of water situation in the selected commodities in an attempt to ascertain prevailing situation and detect gap between water supply and water need; assess the efforts of the government in the provision of water in the study area. It will also assess possible resources available for improved water supply in the study area.

2. Study area

The oil producing region of Ondo State inhabits the Ilaje people of Yoruba race of South Western part of Nigeria. The region lies between longitude $4^0 10^{''}$ to $4^0 45^{''}$ East of Greenwich Meridian and Latitude $6^o 20^{''}$ and $6^0 55^{''}$ North of the Equator. It is bounded in the North with Okitipupa Local Government, in the south by Atlantics Ocean, in the west by Ogun State and in the east by Delta State. The region falls within the coastline and is covered by troughs and undulating lowland surfaces. The extreme south of the area is covered by silt and mud and superficial sedimentary deposit (Ilaje Local Government Area, 2005). Vegetation in the area is zoned by the lateral changes in the surface sediments which give rise to three major vegetation zones namely

        (i)   The high forest zone in the Northern part.
        (ii)   The swamp forest zone which has two sub-zones to the east and west.
        (iii)   The sandy beach and creek zone to the west

The economic activities of the oil producing region of Ondo State centered mainly on fishing, and petty trading. Fishing is the economic mainstay of the people. It was estimated that 80% of the people in the area engage in fishing and that creates employment and generates a substantial income of about 90% of local GDP (Coastal Area Development Consultant, 2000). The population census conducted in Nigeria in 1991 revealed that there are 196,546 inhabitants in the oil producing region of Ondo State. Going by the annual growth rate of 2.83% for the rural area, the population rose to 274,418 in 1996 and is expected to rise above 300,000 in 2012. Despite the fact that the area is riverrine and coastal area of the state, water supply is a major problem as people depend on water from the streams, creeks, stored rain water and underground water tapped through digging of well. Water from well dug for some communities by the government agencies was proved to have high sulphate salt content and therefore not good for drinking. The problem of water supply in the area is said to have been compounded by sea incursion along the coast which renders the coastal free water unfit for drinking. Also a lot of oil spillage and other forms of pollution resulting from oil exploration rendered the water in the region undrinkable. The social and health implications cannot be over emphasized hence is a major problem in the area.

3. Literature review

Worldwide about 2.3 billion suffer from diseases related to water problems. Water related diseases prevent millions from living healthy lives and impede development effort (Population Reports 2002). This was corroborated by Encarta (2004) which asserted that on a global scale, 25,000 people die daily as a result of poor water quality. Also, Encarta (2001) related disease such as cholera, dranculiasis, filariaris, malaria, fever, river blindness, schistosomiasis, trypanosomiasis (sleeping sickness) and typhoid with poor drinkable water and these diseases represent the single largest cause of human mobility and morbidity. It was estimated that about 1.1 billon people around the world lack access to clean drinking water and prone to any of the diseases. Triggo (1985) and Population Report (2002) opined that the quality and availability of water determine the levels of public health, food production, the productivity of industry, and the production of energy and the important aspects of the quality of life. It was estimated that an average person requires almost 20 liters of water per day for drinking, bathing and cocking and other basic needs (UNEP 2002). However, as population increases, the demand for these basic needs will simultaneously increase. It was therefore proposed that to achieve the Millennium Development Goals (MDGS), production of water supply must be double while that of sanitation must be tripled. The issue of scarcity of water has been at the top of the international political agenda. For

instance, an agreement to water is an important part of the peace accords between Israel and its neighbors. It was also helped to maintain peace between India and Pakistan. Even within countries, conflicts over water are often bitter (World Bank, 1995).The major problems facing water supply sector in Nigeria can be categorized as inadequate quality of water, inadequate networks distribution and low quality of water supplied to the general public (Fourth Nigeria National Development Plan 1981-1985; Egunjobi, (1986) and Onibokun, 1986). Oyebade (1977) also outlined reasons for these shortcoming as; inadequate fund for capital expenditure, lack of proper feasibility study of hydrological system, decline in government efforts and inadequate management of water resources.

4. Methodology

Data for this study was obtained from the two main sources; primary and secondary. In primary source, data were collected through a well structured questionnaires designed to elicit relevant information about the existing situation in the oil producing area. Only 10 communities were randomly selected which represent 5% of the entire region of the area. Also adopted under primary source was personal interview, using purposive sampling technique. The heads of the selected communities and representatives which cut across the elders, youths and the landlords were the target population. Also evolved under primary data collection were observations, opinion survey, photographs among others. The relevant literature and maps made up the secondary method of data collection. Data collected were analyzed with the help of Statistical Package for Social Scientists (SPSS).

5. Findings and discussion

5.1 *Socio-Economic Characteristics of Respondent*

Table 1 reveals some information on socio-economic characteristics of the respondents. The information reveals that over 50% of the respondents are between the ages of 31-50years. It also reveals that over 48% and 25.9% are under primary school level and do not have formal education at all respectively. Substantial percentages (73.1%) of the respondents are engaged in fishing. Also revealed by the socio-economic information is 89.25% of the sampled population that are married.With respect to household size, 53.8% of the respondents have between 6-8 people that constitute a household. This shows that the issue of water affects people of differ rent ages, education, households and employment status Also reveals in Table 1 is income status of the respondent s, about 73% earn between ₦50,000 - ₦ 100,000 annually, while the remaining 27.1% earn above ₦100,000 per annum. Table 2 also shows that over 70% of the respondents spend between 10%-20% of their income on water during the dry season. It was discovered as shown in Table 3 that 52.5% of the respondents obtained their water from surface water such as stream, river and spring. These sources are susceptible to depletion during the dry season. This explains the reason why the cost of purchasing water during the dry season is high. Other information obtained from Table 3 is that 25.6% of the respondents have access to public water (borehole and deep well) provided by the state, local governments and NDDC. Most of the respondents (36.7%) have to travel more than 2.5km to get portable water (Table 4). This is due to the fact that the supply of potable water is not enough while same are far from the residences in the area. From the information obtained through the interview, the public water supply has been politicized- the facility is only supplied to those who belong to the ruling party. Additionally, Table 5 reveals that over 40% of the respondents are spending more than 2 hours to get water from the main source while 63.3% claimed that the quality of water supplied by the public water source is not that good, they claimed that the water is coloured and unhygienic (Table 7). Despite the poor quality of the water supply in the area, it was discovered that between 90-100 liters of water are used per household (6-8 people) per day. This is far below the Griggs,1985; NEST,1991; and NES, 2004 discoveries for Asia, Latin American countries and others.

6. Recommendations

The issue of good drinking water in the Costal area of Ondo State, Nigeria is no doubt a problem to people in the region. The recommendations below are given based on the findings and in view of the fact that the people lives on water and yet lack access to good drinking water. It is envisaged that these recommendations will turn around the situation of things in the area. To evolve a holistic approach to the issue of water in the oil producing region of Ondo State, the government and other stake holder should cooperate to apply the concept of Water Poverty Index (WPI) as introduced by Sullivan. The resource components of this concept for example described the water availability. This explains that the freshwater in the neighboring counterpart where the water is pure should be harnessed and used for the benefit of the people. All other indication will also enhance the sustainability of the development of drinking water in this area. Also, the concept of Social Well Being should be given consideration in addressing the water supply problem in oil producing region of Ondo State. It is against this backdrop that the government should consider the well being of the people in the area. This is a

social responsibility of the government. A similar recommendation is the employment of the concept of Environmental Planning Management (EPM) principles whereby the working groups are identified and coordinated (like that of the Ibadan in Oyo-State capital of Nigeria – the Sustainable Ibadan Project sponsored by UN-Habitat) to brainstorm and gather the aggregate opinions of the people on how to develop themselves through the working group and special assistance from Technical Support Unit (TSU) to address the water problems in these communities rather than depending on the government . Additionally, the development agencies such as NDDC, and the Ondo State Oil Producing Area Development Corporation (OSOPADEC) established by the federal and state government respectively should consider the issue of water to the people in the area so important and hence should commence work on project that will enhance the provision of good water for the people. These corporations should take the advantages of the freshwater (Oluwa River) in the area to provide good water for the people. This can be achieved through Ordinary Water Treatment System (OWTS). The system involves the treatment of non-saline water that required the process of sedimentation flocculation coagulation and chlorination. This process will help to remove all pollutants from the river before it is distributed to the communities through water main pipes. In the area of high saline and blackish water, the government can come to the aid of the people through Reverse Osmosis Desalination System (RODS). This system will aid in the treatment of saline or the brackish water before it is being distributed for human consumption. Also, sand filter treatment should also be applied in the area of low saline water before it is finally distributed to the people. Furthermore, the service of qualified and experienced professionals that understand the peculiar terrain of the area should be employed for digging of boreholes in each community and more pipes should be used to annex water to different home. This will go a long way to ameliorate the suffering of trekking long distance to fetching water. Taking these suggestions into consideration will go a long way in reducing if not totally eradicate the suffering of the people in the oil producing area of Ondo State, Nigeria and of course in similar areas in the world over.

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Table 1: Socio- Economic Structure of the Respondents in the Study Area

Variable		Frequency	Percentages
Age	19-30 Years	133	33.4
	31-50 Years	202	50.8
	51-60 Years	63	15.8
	Total	**398**	**100**
Sex	Male	131	32.9
	Female	267	67.1
	Total	398	**100**
Educational Level	No Formal Education	103	25.9
	Primary School	193	48.5
	Secondary	74	18.6
	Post Secondary	28	7.0
	Total	**398**	**100**
Occupational Composition	Fishing	291	73.1
	Trading	39	9.8
	Public Service	66	16.6
	Unemployed	02	0.5
	Total	**398**	**100**
Marital Status	Single	34	8.5
	Married	355	89.2
	Divorced/separated	00	00
	Widow/ widower	09	2.3
	Total	**398**	**100**
House Hold Size	3-5 Persons	41	10.3
	6-8 Persons	214	53.8
	More than 8 Persons	143	35.9
	Total	**398**	**100**
Annual Income	N 50,000-N 100,000	290	72.9
	Above N 100,000	108	27.1
	Total	**398**	**100**

Source: Authors' Field Survey, 20102

Table 2: Percentage of Income spent on water during the dry season.

Income	Frequency	Percentages
Less than 10 %	119	29.9
10-20 %	279	70.1
Total	**398**	**100.0**

Source: Authors' Field Survey, 2012.

Table 3: Sources of drinking water to the communities.

Sources	Frequency	Percentages
Stream/river/spring	209	52.5
Well	38	9.5
Rain water	49	12.3
Public piped water	102	25.6
Total	**398**	**100**

Source: Authors' field survey, 2012

Table 4: Distance of Sources of Domestic Water from Houses

Distance	Frequency	Percentages
Within Neighborhood	20	5.0
Less than 1.0 km	114	28.6
1.0-2.0 km	106	26.6
2.1-2.0km	12	3.0
Above 3 km	146	36.7
Total	**398**	**100**

Source: Authors' Field Survey, 2012.

Table 5: Average length of time for fetching water from the main sources

Time To Fetch Water	Frequency	Percentages
Less than 10mins	38	9.5
10 mins-30mins	72	18.1
31mins-60mins (1hr)	30	7.5
1hr- 2hrs	160	40.6
2hrs-3hrs	46	11.6
More than 3 hrs	52	13.1
Total	**398**	**100**

Source: Authors Field Survey, 2012.

Table 6: Quantity of water supplied by the main sources.

Quantity	Frequency	Percentages
Adequate	06	1.5
Fairly adequate	140	35.2
In adequate	252	63.3
Total	**398**	**100**

Source: Authors Field Survey, 2012.

Table 7: Associated problems with water from main source

Associated Problem	Frequency	Percentages
Not clean/unhygienic	18	4.5
Long time to get there	204	51.3
Supply not constant	29	7.3
Always crowded/causes fight	9	2.3
Warm	138	34.7
Total	**398**	**100**

Source: Authors' Field Survey, 2012.

Table 8: House holds' preferred source of water.

Sources	Frequency	Percentages
Piped compare to rain water	395	99.2
Piped water	03	0.8
Total	**398**	**100**

Source: Authors' Field Survey, 2012.

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